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Surat Case Study

A Dynamic City Region Innovations and Textile Industry

2nd International Conference on the Process of Innovation & Learning in Dynamic City Regions



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Learning in Dynamic City-Regions in
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**Innovation and Textile Industry
(Surat Case Study)**

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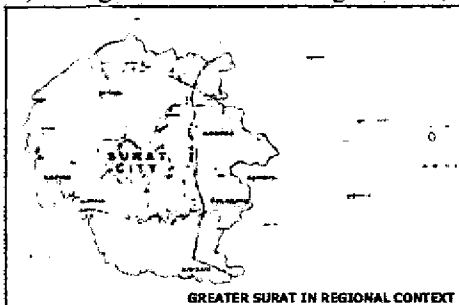
1. Why Surat has been selected as a dynamic city region?

The city of Surat, the commercial capital of Gujarat, is of significant importance to the country. Surat is a pivotal centre on the Ahmedabad-Mumbai 'Golden Corridor' as well as on the 225 km long industrial belt, having direct linkages with the industrial urban centres of Vadodara, Ankleshwar and Vapi.

Surat, a prominent west Indian mercantile node since the seventeenth century and a contemporary industrial city in the state of Gujarat today, presents a mix of continuity and change in its social and economic character. Its dominantly trade centered economy of the past is now an amalgamation of a capital-intensive industrial units and a wide range of numerous small scale and household enterprises.

Its entrepreneurial skills are worth noting. The city without a single locational advantage successfully hosts crores worth diamond industry. These diamond industries in the city with a large number of migrant workers, is a significant achievement. Along with these, the city has made an important position in the world and national economy.

The city has emerged as the major revenue earner in terms of excise, sales tax and income tax. At present there are around 10,000 diamond cutting and polishing units, 330 textile dyeing and printing units, over 500 texturising units, nearly 80 chemical industries, approximately 4,50,000 powerloom units and 6,610 jari units in the city. Nearly 40% the total production of man-made fabrics in the country is manufactured in Surat. Almost 80% of the country's total diamond processing (cutting and polishing) is done in Surat. The city has emerged as a major foreign exchange earner with around 40 per cent of the nation's total diamond and gem exports, having a turnover amounting to Rs 36,000 crore in a year.



The city of Surat has achieved a remarkable transformation as one of the cleanest cities in India in less than two years after the outbreak of pneumonic plague in Surat during September 1994 which created worldwide panic and severely affected the city as well as the entire nation's economy. This transformation was largely due to improved municipal management, which was brought about by a strong leadership. Its initial success led to a widespread support among the local population and provided motivation for the municipal staff and the elected representatives to make further improvements in the city. The Surat experience has demonstrated that urban local governments in the developing countries have the capacity to face the challenges of rapid urbanization and improve the quality of life of all the residents. Today, the city governance has come to be recognized as an example of 'Good Governance' system.

Surat is one of the cleanest city of India and is also known by several other names like "THE SILK CITY", "THE DIAMOND CITY", and "THE GREEN CITY".

The city of Surat is known for its strength to convert adversity into advantage

2. Gujarat Region

Gujarat, the second most industrialized State in India, has been on the industrial map of the world since the late eighteenth century with its long-standing trade links with Europe, the Middle-East and African countries. Situated in the Northwest part of the Indian peninsula, the State is endowed with abundant natural resources, the largest coastline in India, industrially congenial atmosphere, entrepreneurial people and a comparatively high standard of living. Progressive and constructive policies adopted by the consecutive State Governments coupled with the inherent geographical advantages, have converted Gujarat into one of the most encouraging investment location in India. A fully developed infrastructure network, dependable power supply, adoption of advanced technologies and a highly motivated and skilled workforce are behind the phenomenal emergence of Gujarat as one of the most industrialized States in India.

With the population of 4.88% of the country's, yet contributes 11% of India's GNP and 10% to the national consumption. Gujarat is amongst the first 4 States having per capita income above the national average. State has also been successful in achieving industrial dispersal to a great extent with a number of industrial areas emerged around the whole State. Gujarat contributes about 16% of total export in the country, and is the leader in export of dyes, intermediates, drugs & pharmaceuticals, diamond, gems & Jewellery with a share of about 40%, 45% and 70% of total export in the country respectively. Gujarat is the center of the Indian cotton-textile industry. Gujarat also contributes significantly in ready-made garments and export in handicrafts. With its 1600 km long coastline, Gujarat contributes with an export of about 10% of marine products of the country.

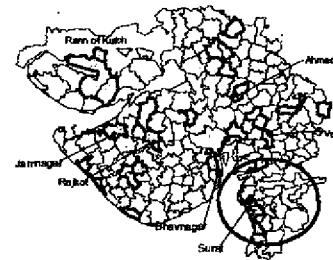
The golden corridor, from the point of view of the industry (because of good transport and communication infrastructure, large pool of cheap and unorganized labor availability), in Gujarat extends from Vapi in the south to Mehsana in the north. There are over 50 industrial estates in this region, most house over a thousand industries and many are spread over a thousand acres. The city of Surat holds important position on this golden corridor.

3. Brief History of Surat City and its related Region

The modern city of Surat which has a glorious history dating back to 300 B.C. owes its name to the old Hindu town of 'Suryapur'. Administratively the Gujarat region including the city of Surat has undergone a significant change over time.

The port city of Surat was actually the creation of the Mughals. Till the rise of Bombay port in the seventeenth and eighteenth centuries Surat was at the height of prosperity (Government of Gujarat 1991). Throughout the second half of the seventeenth century it served as the emporium of trade, both inland and sea-borne, and was the chief port of the Mughal Empire. In 1759, The British rulers took its control from the Mughals till the beginning of 20th century and European nations carried on a very profitable trade there. But there were a few factors, which caused considerable disturbance and injury to the trade of the city.

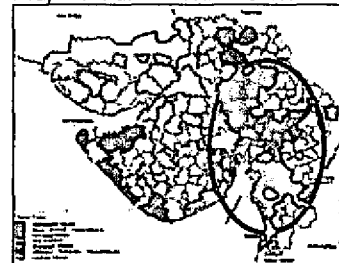
Major Urban Concentrations



Gujarat's City Regions Possess:

- **Capacity to attract Investments**
 - Quality of life in cities
 - Quality of services in cities
- **Capacity to attract/develop talent**
 - Quality of institutions in cities
 - Cosmopolitan character of cities
- **Capacity to export goods/services**
- **Capacity to attract tourists**
 - Image of towns and cities
 - Efficiency of towns and cities
 - Hospitality of towns and cities

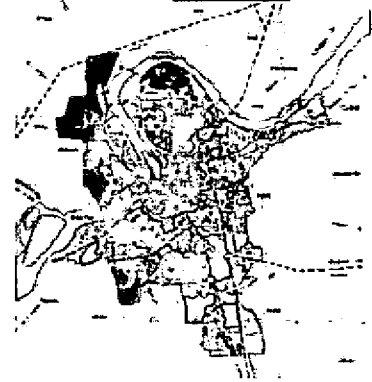
Major Urban-Industrial Clusters



The decline in Surat's mercantile glory along with its varying institutional forms had set in by the late nineteenth century. By the turn of the twentieth century its status had shrunk to a regional center from its earlier position of a sub continental as well as overseas trade node. Though the decline of trade took away its cosmopolitan trading character and thereby affected the processes that were linked with the accumulation of merchant capital, it did not take a long time for the local traders to find avenues of capital employment in the fast changing commercial sectors and small scale industries within the region. A large section of the population was still dependent on industry and trade – the character of which had already undergone a transformation owing to the flight of capital to Bombay and growth of zari industry and at a subsequent stage the numerous power-looms spread over the city.

While emergence of the large-scale units in the city has been of a relatively recent, the economy of Surat has long been characterized and shaped by small-scale decentralized production units. This has been particularly true for the power loom as well as diamond and zari industries. Even the post-independence industrial development policy has helped in sustaining the small scale industrial character of the city. This has attracted a large number of workers from within as well as outside the state.

Today, Surat is one of the most dynamic city regions of India with one of the fastest growth rate due to immigration from various parts of Gujarat and other states of India.



latitude 21°15' N and longitude 72°52' E on the banks of river Tapi

Geographical Area: 112.28 sq.km

Population:

U.A.	Population (in Lakh)	Growth Rate
Ahmedabad	4.5	36.44
Surat	2.8	85.09
Vadodara	1.4	32.44
Rajkot	1.0	-53.12

4. Facts and Findings of the City Region

City	Population (In millions)					Growth Rate (%)			
	1961	1971	1981	1991	2001	1961-71	1971-81	1981-91	1991-2001
Ahmedabad	1.20	1.75	2.54	3.29	3.51	45.30	45.40	29.41	27.53
Bhavnagar	0.17	0.22	0.30	0.40	0.51	28.05	36.58	30.74	27.50
Jamnagar	0.15	0.22	0.31	0.36	0.45	42.97	39.41	15.16	25.00
Rajkot	0.19	0.30	0.44	0.65	0.97	54.84	48.06	46.27	49.23
Surat	0.31	0.49	0.91	1.51	2.43	55.27	85.35	93.01	63.38
Vadodara	0.30	0.46	0.74	1.11	1.31	50.94	59.33	49.72	18.02

Population Density:

21677 person/sqkm

Zones – 6, Wards – 66

Literacy – 83.38%

Sex Ratio – 774

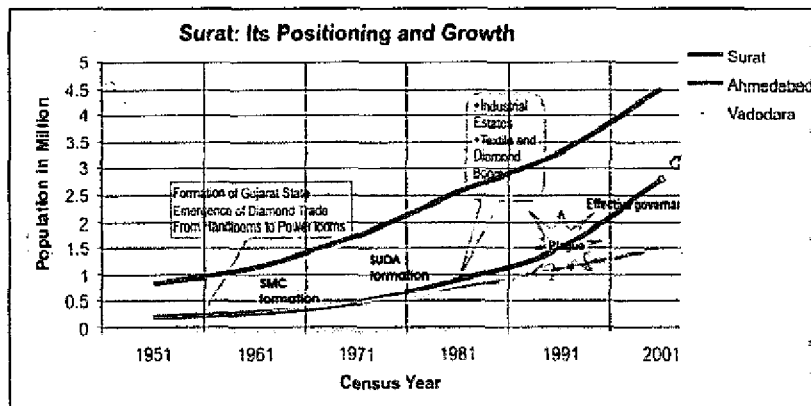
Total Workers – 927836

Main Workers – 37.75 %

Marginal Workers – 0.78 %

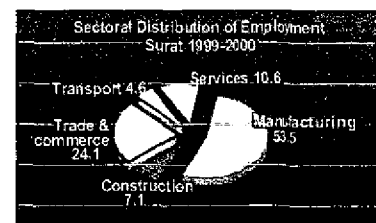
Non Workers – 61.88 %

Surat continues to present a 6% plus annual population growth since 60's, placing it at 9th position in terms of size countrywide (2001).



Sectoral Distribution

- Workers in Primary Sector –
- Workers in Secondary Sector –
- Workers in Tertiary Sector –

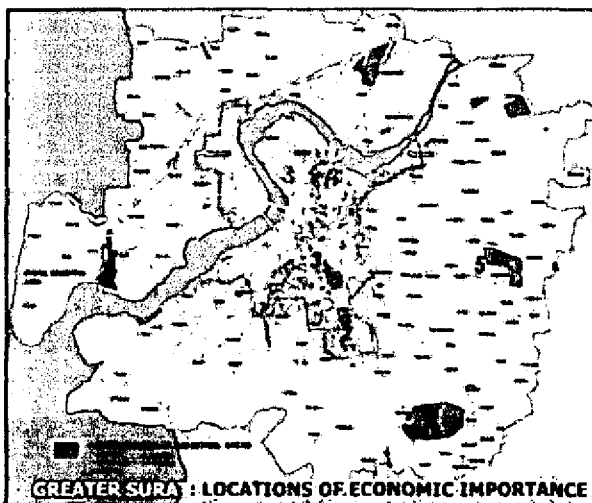


5. How did the city region reach its growth?

The city was originally established on the southern bank of the River Tapi with a castle on the eastern bank of the river. A customhouse was on the northern side of the castle. The activities were concentrated within the inner wall. Surat witnessed the development of its suburbs Udhna, Athwa and Fulpada during the beginning of the 20th century. The physical expansion of the town was radial and rapid along five major corridors on the north, south, east, west and south-west till the end of 80's. Since the 90's the city has been growing rapidly on the eastern, southern and south-western sides wherein large chunks of residential localities were developed. After becoming a Municipal Corporation, the city has recorded some of the highest growth rates in the country. During the decade 1971-81, the growth rate of the corporation area was 64.65 percent while that of the urban area was 85.35 percent, which was the highest among all the present day metropolises. A remarkably high growth rate was witnessed at 93 percent during 1981-91 while the decade recorded 62.38 percent during 1991-2001.

Significant contributor to the city's spectacular population increase is the phenomenal migration of people from different parts of the country, particularly from Uttar Pradesh, Bihar, Maharashtra, Orissa and other parts of Gujarat who get attracted to this city because of its industrial advancement. The growth of industrial production has been substantial. Concentration of these industrial activities combined with residential developments to house huge influx of migrants has resulted in considerable expansion of the city limits.

Proximity to Mumbai helped Surat develop as a satellite industrial town acting as a feeder line to the industries in the commercial capital of the country. Surat has grown as an industrial town mainly engaged in power looms, weaving, printing and dyeing of textiles, cutting and polishing of diamonds, manufacture of silver and gold brocade; and manufacture of plastics. In the last two decades, especially during the eighties large-scale industries have come up in Surat and its peripheries.



The City Region Attractions

The Old Fort: Built by Mohammad Tughlak in the 14th century, as a defense fortification against the Bhils.

The Textile Market: Surat's vast and active textile market testifies its importance in the textile trade.

Dumas: A seaside health resort 16 km from Surat.

Hajira: It is situated 28 km from Surat. The pleasant Hajira Beach is fringed by feathery 'Casurina' trees.

Dandi: Situated on the coastline and well known as a salt centre, Dandi has acquired a name in history after the famous 'Dandi March Salt Satyagraha' launched by Gandhiji in March, 1930 AD.

Ubharat: It is situated 42 kms from Surat. Ubharat is known for a fine, sandy beach with a backdrop of shady palm groves.

Tithal: It is situated 108 kms from Surat and 5 kms from Valsad on the Bombay Vadodara Western Railway. A beautiful sandy beach palm sheltered cottages is what one would get to see there.

7. Infrastructure

Sector	Status
Water Supply	<ul style="list-style-type: none"> ▪ City operates water supply system with 628 MLD installed capacity to serve 95% population coverage at about 200 liters per capita per day.
Sewerage	<ul style="list-style-type: none"> ▪ About 500 km long gravity trunk main network serve 93% population ▪ 100% treatment capacity has been established
Sanitation	<ul style="list-style-type: none"> ▪ All slums covered with shared sanitation facilities ▪ 27% households covered with individual toilets
Storm Water Drainage	<ul style="list-style-type: none"> ▪ About 300 km network covers 85% of the city
Solid Waste Management	<ul style="list-style-type: none"> ▪ About 900 MT of municipal waste is generated. Efficiency of collection is as high as 98%.
Road Density	<ul style="list-style-type: none"> ▪ 967.56 km long road network spread in the city, having a road density of 8.46 km /sq km. ▪ The city has 6 bridges across the river and 4 fly-overs provide for mobility in the city.
Roads (District)	<ul style="list-style-type: none"> ▪ National Highway : 149 km ▪ State Highway : 1169 km ▪ Major Roads : 94 km ▪ Other Roads : 115 km ▪ Village Roads : 24 km
Railway Line	<ul style="list-style-type: none"> ▪ Broad Gauge: 147 km ▪ Meter Gauge: 59 km
Airport	<ul style="list-style-type: none"> ▪ Air Strip
Ports	<ul style="list-style-type: none"> ▪ Magdalla ▪ Bhagva ▪ Hazira
Major Cities Linked	<ul style="list-style-type: none"> ▪ Ahmedabad ▪ Mumbai
Industrial Zones & Parks	<ul style="list-style-type: none"> ▪ 5 Industrial Estates ▪ Jewellery Park ▪ Apparel Park
Export Promoting Zones	<ul style="list-style-type: none"> ▪ First Private Special Economic Zone of the country Near Sachin ▪ Special Economic Zone at Hazira

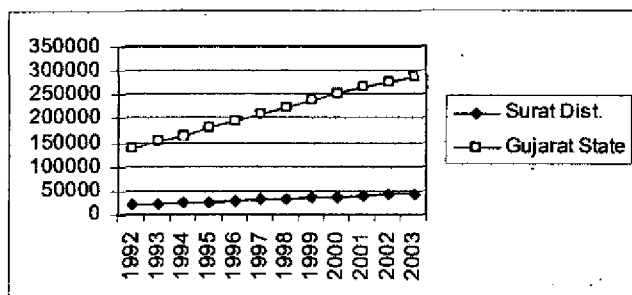
8. Industrial Base of the City and the related Region

The phenomenal industrial development during the last two decades is primarily concentrated in Surat city and its neighbouring areas, namely Udhna, Pandesara, Bardoli, Vyara etc.

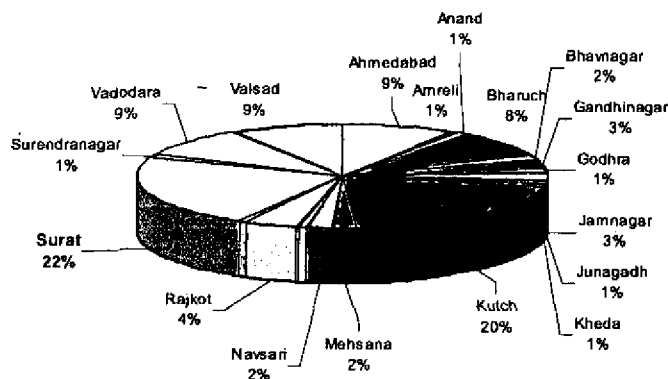
Type	Nos.	Investment (Rs. in millions)	Employment
SSI	27238	833.5	145685
LMI	386	126335.9	90000
Indus. under pipe line	133	11220.0	14234

Small Scale Industries:

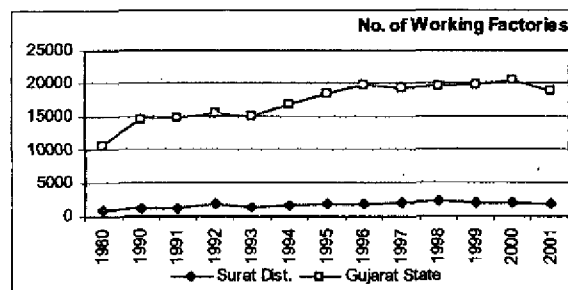
Surat is experiencing a steady growth in small scale industries in the district. Ahmedabad leads among districts with highest number of small scale industrial units (21.96% of total units in the state), followed by Surat with 41509 units (14.90% of total units in the state).



Large and Medium Scale Industries:



Factory Sector:



Among the major industries in Surat: **diamond cutting, textile, zari, dyeing and printing**, initially flourished as either small scale or household industries. Diamond is an export based industry while textile, zari and others primarily cater to the domestic market. **In fact, the city is a major producing centre for synthetic fabrics and zari in India.** The finest quality of art silk is produced in

Major Industrial Activities and Employment in Surat : 1994			
Major Industries	Production (Rs. In Crores)	Export (Rs. In Crores)	Employment (lakh)
Textile	7750 (44.79)	175 (12.10)	4.50 (57.69)
Diamond	8000 (46.24)	8000 (96.38)	2.50 (32.05)
Colour Chemicals	1550 (8.95)	125 (1.50)	0.80 (10.25)
Total	17300 (100.00)	8300 (100.00)	7.80 (100.00)

Source: Southern Gujarat Chamber of Commerce and Industry, Industrial Data - 1994.

Major and medium industrial activities are located in the northern and southern parts of the SMC area, mostly along both the sides of the trunk railway line linking Surat with Bombay and Ahmedabad.

Gujarat Industrial Development Corporation has established five industrial estates in the district. Three big industrial estates, one in the north (Katargam), another in the south-west (Katodra) and the third in the extreme south (Pandesar) as well as the mini industrial estates of diamond cutting and polishing in the eastern corridor (Nana-Varaccha Road) are the major industrial establishments in the SMC territory outside the walled city area. Surat has the distinction of having the pioneer co-operative industrial estate in the country. Udhna Co-operative Industrial Estate is established with approximately 500 units, a majority belonging to the textile group, followed by engineering and chemicals.

Major Industries (City)	Numbers
Texturising units	500
Power looms	0.45 millions
Process houses	400
Zari units	6610
Dyeing and printing mills	326
Dyes and chemicals	130
Plastic units	200
Diamond units	0.01 millions
Food products	56
Information technology	300

Source: Surat City Corporate Plan, 2003.

9. Composition of Industrial Growth in the City Region

Modern Surat is the main center of economic activity in the South Gujarat region with the largest textile markets and diamond business centers in the country. During the post-independence period, Surat has experienced considerable growth in industrial activities (especially textiles) along with trading activities. The evolution of the handloom power loom and sectors led to growth of textile industries gradually. Another important addition since the 1950's is the diamond cutting and polishing industry. Traditional industries of Jari, Art Silk, diamond cutting and polishing, textiles manufacture, dyeing and printing industries etc. are still functional in Surat, playing a significant role in the economy of the city. Subsequently, diversification from these traditional industries has taken place. In the last decade, the industrial landscape of the city has attained a new dimension with the coming of heavy industries like Reliance Industries Ltd, Essar Steel, KRIBHCO, ONGC, NTPC, L&T on the outskirts of the city in the Hazira industrial complex. The total investment in the Hazira belt is to the tune of around Rs 18,860 crore. Heavy plant equipment, LPG, sulphur, synthetic yarns, sponge iron, urea, ammonia are produced by L&T, Essar Steel, ONGC and Reliance Industries. Projects in the field of nuclear, heavy water and space research are also being executed. The upcoming liquefied natural gas (LNG) terminals at Hazira near Magadalla port, scheduled to begin operations in a year or two, is the latest addition to the city's industrial map. This has given further impetus to Surat as an industrial and business center.

10. Major Industrial Sectors Contributing to Surat's Dynamic Growth

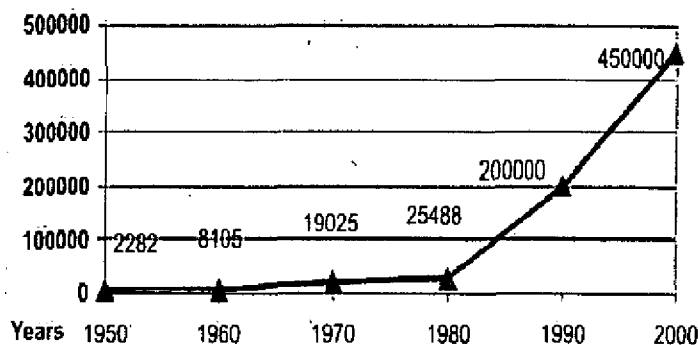
Surat provides 1 million people with industrial employment (1998) of which over 0.7 million are employed in textile sector and 0.3 million employment in diamond sector. Till today industrial structure of Surat was dependent on textile sector. This sector has a lion's share of 41% of total number of industries and 47% of the total industrial employment. There are about 0.45 million power looms in the city which account to 54% of the total power looms in the entire country.

10.1 Growth of Textile Industry

Textile is one of the oldest industries in the country and continue to be a significant contributor to the value of industrial production, employment and thus, to national income. An estimated 4% of GDP is contributed from the sector. It contributes to about 30% of country's export earning while accounts for about 7-8% of the gross import bill. Surat is a dominant player in the textile sector.

Surat is one of the largest centres in the world for production of synthetic fibre fabrics, mainly nylon, polyester and Art Silk. The Surat belt is well known for polyester fabrics, gaining from the proximity of large polyester yarn suppliers. Since 1956, the Indian Government's policy of providing incentives and protection to small-scale industries gave a boost to the power-loom industry in the city. The industry has been a fast-growing supply base for the domestic market and, starting with the Middle East, it has steadily grown its exports also. At present, there are about 450,000 power-looms (about 45000 units) in the city region providing for over 700,000 jobs in Surat.

Growth of the Powerlooms in Surat, 1950 - 2000



Source: Based on estimations of SGCCI, 2003.

Each unit, with a turn-over of nearly Rs. 50 million, produces about 35,000 to 150,000 meter of Sari and dress material daily. Thus, equipped with over 4 lakh looms, Surat produces about 6000 million linier metres of polyester filament fabrics annually. There are about 400 processing units; each one has an average capacity of about 20 million linier meters of fabric per annum. Almost 80% of these units are producing dress fabrics and Sari.

The Textile and Diamond units of Surat contribute to:

- 42 % of the world's total rough diamond cutting and polishing
- 70 % of the nation's total rough diamond cutting and polishing
- 40 % of the nation's total diamond exports
- 40 % of the nation's total man made fabric production
- 33 % of the nation's total fibre spun filament fabric production
- 19 % of the nation's all types of fabric production
- 11 % of the nation's total man made fibre export

Art Silk Industry in Surat City Region

No. of Powerlooms (estimated) : 600,000
 No. of Processing Units : 400
 No. of Texturising Units : 2,500
 No. of Embroidery Machines : 3,000

Employment in

Powerloom Units : 750,000
 Processing Unit : 150,000
 Texturising Units : 25,000
 Embroidery Units : 25,000
 Cutting, Packing, Despatching : 250,000
 12,00,000

Raw Material:**Yarn Consumption by Weaving Sector**

Yarn	Consumption (M. Tonnes)	Average Market Price (Rs./ Kg.)	Approx. (Rs. in Crores)
Synthetic Polyester Filament Yarn	450,000	110.00	4,950
Nylon Filament Yarn	30,000	240.00	720
Viscose Filament Yarn	40,000	225.00	900
Bleached Spun Yarn	80,000	140.00	1,120
Total	6,00,000		7690

Production:**Total Production of Grey Fabrics**

(45") 13 mts/kg. avg. mts : 800 (crores mts)

Production of Man-made Filament Fabrics

- (i) In India (2003-04) : About 18,000 million mts
 (ii) In Surat (2003-04) : About 7,000 million mts
 (about 40% of country's production)

Production of Man-made Fibre Spun and Filament Fabrics

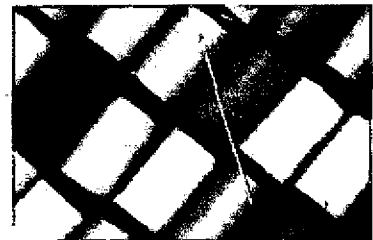
- (iii) In India (2003-04) : About 24,000 million mts
 (iv) In Surat (2003-04) : About 8,000 million mts
 (about 33% of country's production)

Production of All Types of Fabrics

- (v) In India (2003-04) : About 42,000 million mts
 (vi) In Surat (2003-04) : About 8,000 million mts
 (about 19% of country's production)

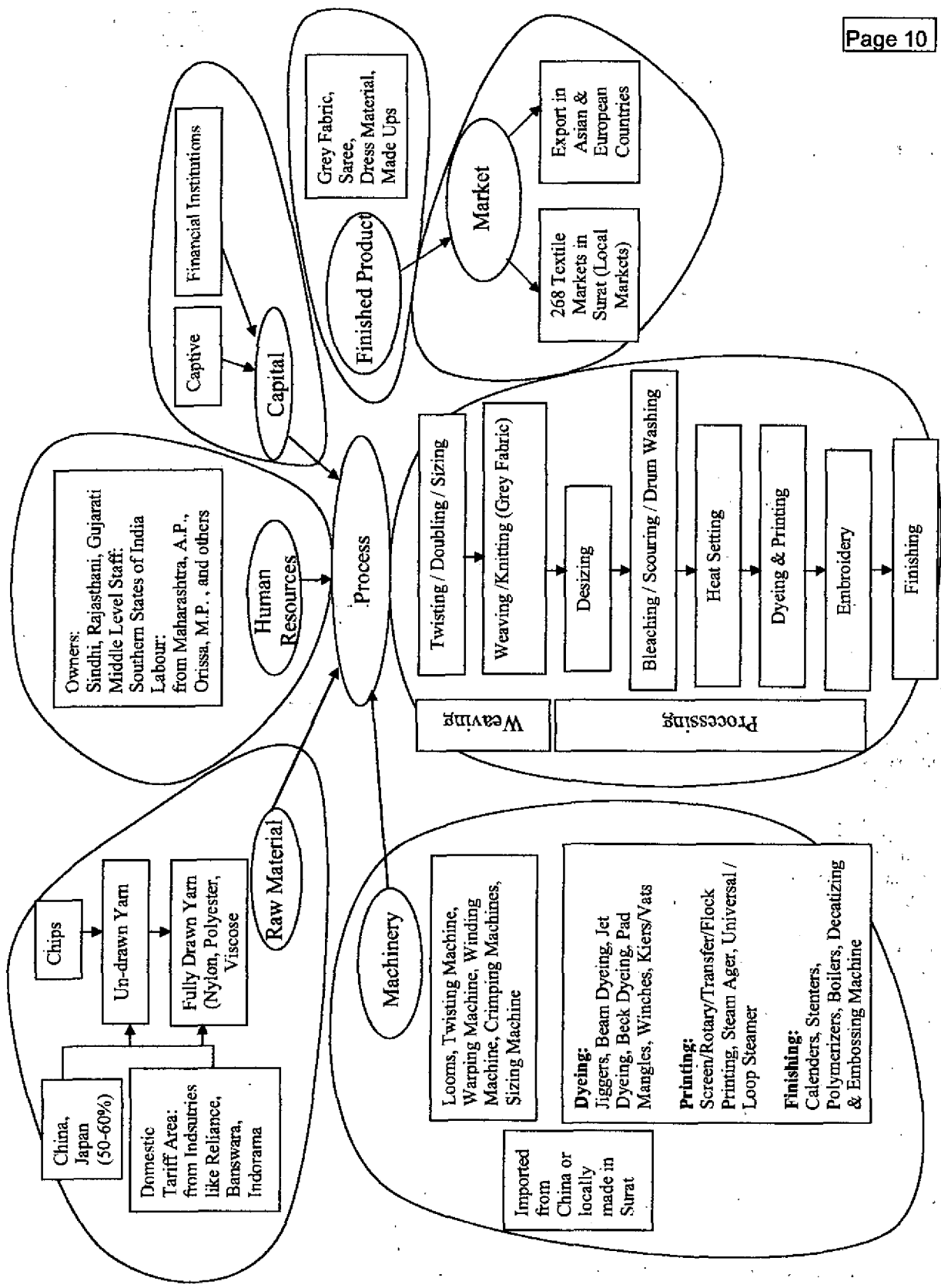
Structure of Textile Industry in Surat

The highly decentralized textile industry in Surat has weaving units and processing units. All the five pillars of the industry: machinery, material, manpower (human resources), money (capital), and market are in place. The strong linkages between these have contributed to the success of the industry. The chart below depicts the whole textile industry in Surat.



Surat is the largest center for Art Silk Fabric producing over 40% of the Art Silk Fabric produced in the country.

TEXTILE INDUSTRY OF SURAT



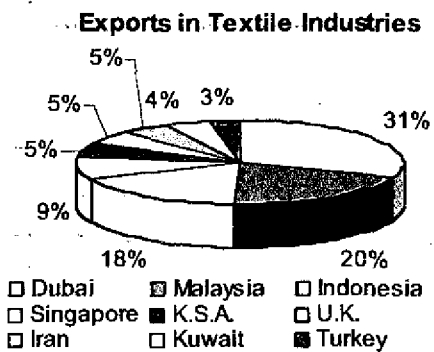
Sales:

Fabric	Crore mts	Rs. in Crores
1. Grey Fabric (Avg. Rs. 16/mt)	800	12,800
2. Finished Fabric	800	17,600
2.1 60% power processed at Rs. 25/mt	480	12,000
2.2 20 % hand processed at Rs. 20/mt	160	3,200
2.3 20% sold grey to Amritsar, Hyderabad and Mumbai for processing at Rs. 15/mt	160	2,400

Source: Surat Art Silk Manufacturers' Association (2003-04)

Export:

Export of synthetic textile from Surat touched an all time high of Rs. 1015 crores in 2003-04 as compared to Rs. 370.91 crores in 2000-01 showing a growth rate of 176%. This was indeed a remarkable contribution to India's aggregate exports worth Rs. 8943 crores of synthetic textiles during the same year. Surat's biggest market for export is Dubai accounting for 31% followed by Malaysia accounting for 20% in total exports during 2003-04.



Source: Surat Rayon Textile Export Promotion Council

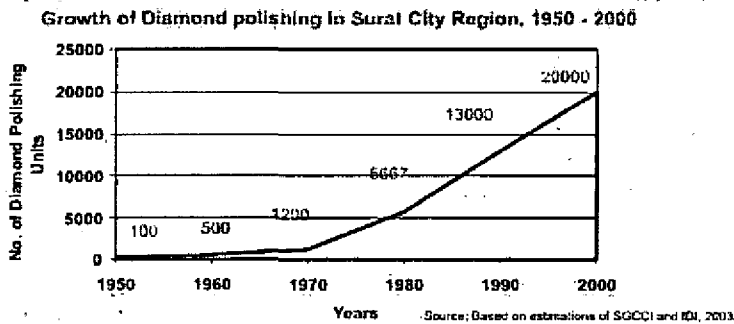
Export of synthetic textile from Surat touched an all time high of Rs. 1015 crores in 2003-04 as compared to Rs. 370.91 crores in 2000-01 showing a growth rate of 176%.

SWOT Analysis of Textile Industry

STRENGTH	WEAKNESS	OPPORTUNITY	THREAT
Availability of raw material	Lack of knowledge of market demand amongst weavers	Export Potential of Products	
Availability of cheap labour	Lack of promotion-communication at the higher level	Exploring newer markets	Competition from other countries
On-job training	Low pace of modernization	Regional connectivity	
Institutional support is available for testing, technical services, and designing.	Lack of standardization or quality consciousness	Government policy to set up an apparel park in the city	

10.2 Growth of Diamond Industry

Gujarat accounts for almost 80 % of the diamonds processed in India. Of this, 90 % are processed by about 10,000 diamond units located in and around Surat alone. Almost every third resident of Surat is connected with the diamond polishing industry, and workers travel from different parts of India to find employment in the city.



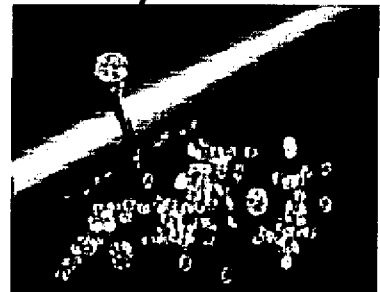
Surat became a diamond-processing center as early as 17th century and is today the main *diamond city* in India. Coupled with ease of establishing small-scale industries, various governmental policies aimed at increasing the export of polished diamonds aided the growth of such units in the city. During the 60's, exports in polished diamonds grew 14 times. In the early 1970s, there were about 1200 units, employing 20000 workers. In the early 1990s, the number of units was estimated at 13000, providing employment to more than 100,000 workers.

Like textiles, diamond cutting & polishing also a labour intensive industry. India's first private sector Special Economic Zone has been functioning at Sachin in Surat since November 2000. From a household industry base over the years, the structure of the industry has changed to small, medium and large scale units. Technical advancements have also contributed to improved productivity. However, as a result, though output increased 5 times during last 10 to 15 years, there has not been any significant increase in number of jobs.

Diamond Processing Industry: A Global View

There are around 8-10 countries in the world which are involved in mining of diamonds. Rough diamonds are procured from these countries by independent producers or contracted producers of DTC. Though DTC, rough diamonds are brought to different countries. Around 80% of these rough diamonds come to India for cutting and polishing. Polished diamonds are available for local production or exports. Generally, from India these are exported to countries like U.S.A., Japan and other European countries. India accounts for 90% of the world's net export; Gujarat accounts for 80% of the diamonds processed in the country and Surat accounts for 90% of the diamond processed in the state. Diamond industry of Surat, has put the city as well as the country on the world map.

'Almost every third resident of Surat is connected with the diamond polishing industry'



India accounts for:

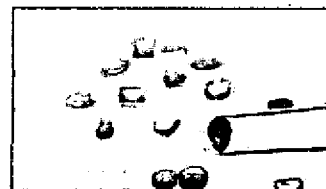
- 55% of the world's net exports (in terms of value)
- 90% of the world's net exports (in terms of pieces)
- 80% of the world's net exports (in terms of carats)

Gujarat accounts for:

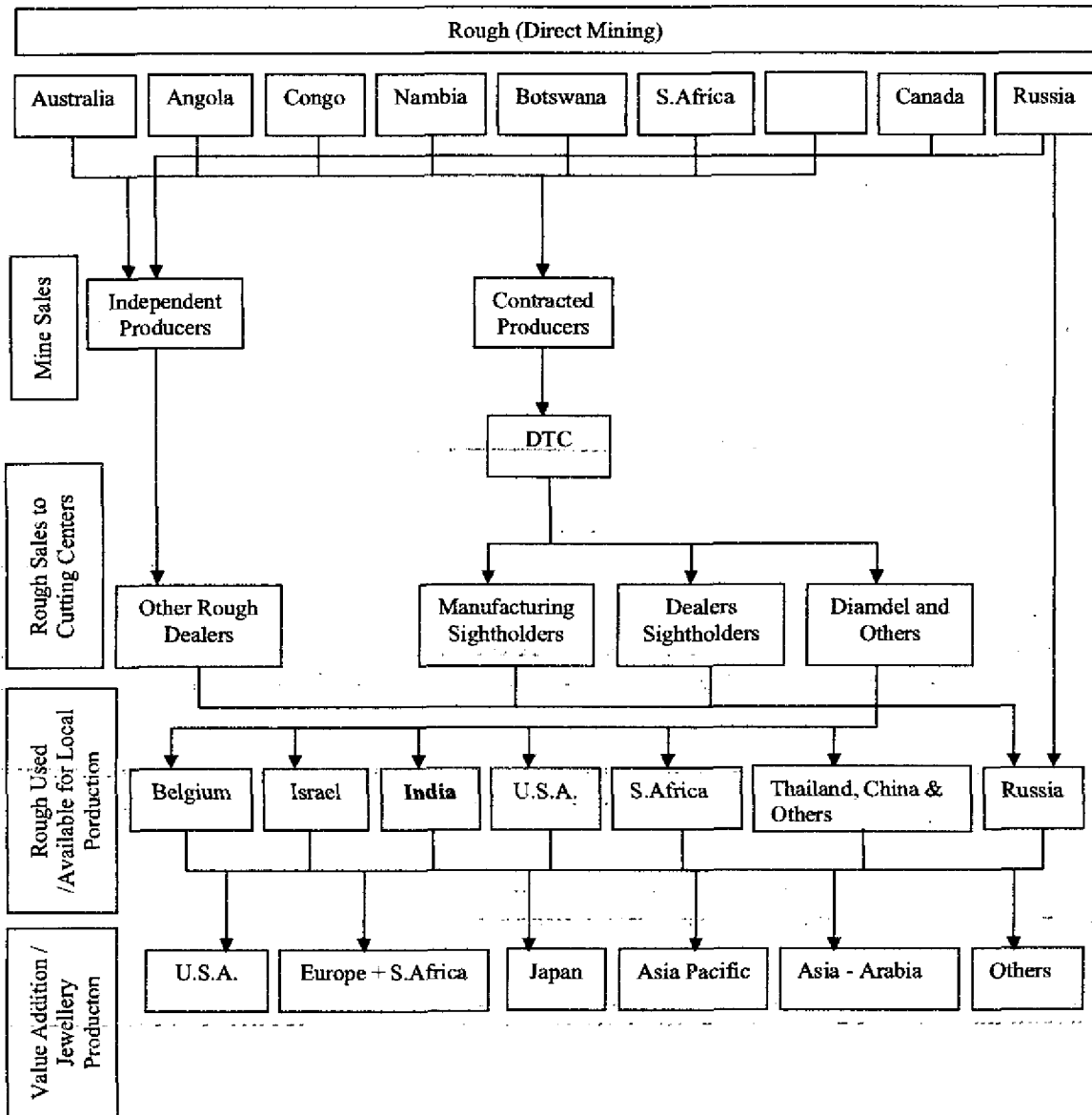
80% of the diamond processed in the country

Surat accounts for:

90% of the diamond processed in the state



Diamond Processing Industry: A Global View



Diamond Industry in Surat

The Diamond Industry flourished in Surat requires a low capital base, is non polluting, high on employment generation and is a leading contributor to foreign exchange reserve.

Export

Exports of Gems and Jewellery from Surat alone were in the tune of Rs. 3330 million in the year 2000-2001, which was around Rs. 110 million in the year 1996-97.

10.3 Zari Industry

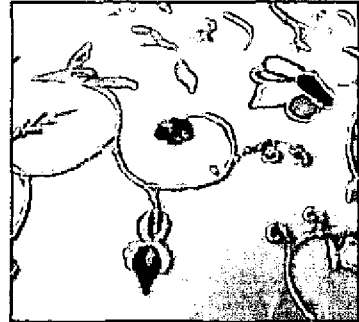
Surat is the home of zari industry in India which dates back to 16th Century. Both, imitation and real Zari threads, Zari embroidery materials, Zari laces and borders are manufactured in Surat. Over the years the industry has faced numerous problems including the threat of extinction but the strong will of the craftsperson and the enterprising spirit of some of the people have kept the industry alive even in the face of many onslaughts.

It is estimated that there are 500 composite/semi-composite units and around 3000 tiny, household units of Zari in Surat. These tiny units are engaged in one or few operations of production of Zari which is of three types:

- Real Zari is made of silver and electroplated with gold.
- Imitation Zari is made from copper.
- Plastic Zari is made from metallic yarn.

The industry makes embroidery materials for machine and hand embroidery viz. Zari thread / kasab, nakshi, salmo, sadi, kangri and badla. Surat Zari including real Zari is used by the weavers of Varanasi in a huge quantity in weaving of traditional sarees and other articles like Wall Hangings, Cushion Covers, dresses etc. Accessories are also made for a variety of uses. The weavers now have started to prepare other articles also with their traditional weaved material as per taste of modern buyers.

There is tremendous scope to explore the export of Zari by attempting diversification in the end products.



11. The Process of Governance

Surat Municipal Corporation perceives its role as the principal facilitator and provider of basic services to ensure a better quality of life of the residents of the city. During the last decade the SMC has improved the administration significantly through several reforms in various different fields, which is the ultimate reason for improvement in all the spheres of urban management.

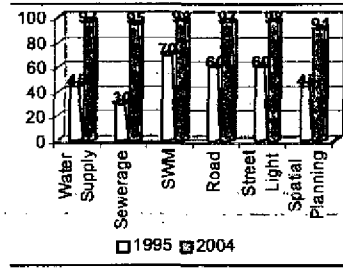
Till the 90's, while the city had a vibrant economy, the focus was on growth with limited response to housing and services and the local administration did not translate benefits of growth in terms of a financially robust local administration. The City was known for its filthiness, a city "floating on sewage water". Over forty percent of its population lived in slums, most of which had no drainage system whatsoever. The dirty water used to flow and stagnate around the houses, particularly in the monsoon when low-lying areas are prone to water-logging. Consequently, the city has always been a fertile ground for epidemics of water-related and water-borne diseases. The plague struck the city in 1994. The situation was that of a total despair.

The city government took charge of the situation and undertook one of the most massive clean-up operations in recent times. They also took this opportunity to revamp the entire administration of the city. Within the initial two years, Surat had been transformed from the one of the filthiest cities to the second cleanest city in the country. This event reflected the ability of local governance to turnaround and the support of the citizens in transforming their city. This transformation is an outcome of the ingenious entrepreneurship skills of people of Surat and commitments of the local and the State Governments.

The transformation of Surat may be seen in four different stages of cumulative contribution. In the first stage just after plague the effort, in addition to managing emergency by improving the sanitation, focused on demonstrating the rule of law through encroachment removal. The city also demonstrated that it cares for the common man when it provided minimum required facilities to all and especially the poor. The second stage may be termed as the stage of big plans. The large gaps that existed in the services had to be filled sooner or later. The city started making big plans for 100% population coverage with basic services. Along with this the need for raising resources was undertaken as a major initiative. A improve the transparency an effective complaint redressal system was also put in place. The efforts started bearing fruits. The income started increasing with near 90% collection in property tax. The next stage was to carry forward the initiative and convert the big plans to reality. The stage focused on implementation of all the big projects. Having implemented major infrastructure projects, which took care of quantity-coverage issues, it was time to look at qualitative aspects of life. The city now started looking at increased hours of services' supply, building of parks and playgrounds, concrete streets, better housing for the poor etc., It also started initiated efforts to make the city a 'Global City with Global Standards and Global Values' by drawing up a vision and a strategic plan. Now the city proposes to provide water 24X7, establish a mass transit system and become a city without slums. In all its efforts, which cumulatively form a mega innovation, the Surat Municipal Corporation has majorly

The city governance of Surat is recognized as an example of good governance system. The experience of Surat has demonstrated that urban renewal is a key to economic development.

Level of Basic Services



The Transformation of Surat is an outcome of the ingenious entrepreneurship skills of people of Surat and commitments of the Local and the State Governments.

emphasized on putting in place institutional mechanisms for improved decision-making, which has enabled the city to achieve sustained improvements in its performance. On the whole, not only has the physical appearance of the city improved, but there has also been a significant improvement in public health. One of the intangible but most significant benefits of the entire exercise has been the change in the attitude of citizens, who are now proud to belong to the second-cleanest city in the country. Apathy has given way to concern and awareness.

A campaign of 'Surat First' had been launched by the city government, in response to which 184 private sector firms and institutions have come forward to invest in the city's welfare. NGOs have also come forward to adopt slums for creation and maintenance of infrastructure. One of the important lessons that Surat provides to other cities is that it is possible to overcome the most pressing urban problems through local solutions. Though the motivation for change came from a crisis-driven situation of Plague, the efforts to revamp the municipal administration were through the collective efforts of the elected representatives and the executive officers. There was no external aid, neither financial nor technical, for initiation of change. This was possible through the able leadership. The Surat experience suggests that the local governments need to first build its credibility through improved administration.

12. Policies, Incentives and Resources

The central and State Government as well as the local bodies in the city have introduced various schemes to promote the industrial growth in the city region realizing its potential.

Schemes Sponsored by Central Government

General Schemes

Incentives to Small Scale Industries

The national policy of providing various incentives to the small scale industrial sector led to the rapid industrialization of Surat in the post-independence era. The city of Surat was experiencing major growth in small scale industry (especially in synthetic fibre). The various incentives to small scale industries offered by the state government during the late fifties resulted in a mushroom growth of powerloom based textile industries in the expanded municipal boundary during the 1960s.

Nationalization of Banks

The bank nationalization of 1969 opened up an easier source of finance in this sector.

Establishment of Industrial Estates

Industrial establishment like Udhna Udyog Nagar and others in Katargam, Sachin and Pandesara developed in the peripheral area of the city boundary.

Sector Specific Schemes

Textile Industry

Technology Upgradation Scheme (TUF)

Under this scheme, units which could get finance through nationalized banks or certain co-operative banks, get benefits. Under this scheme (TUF) the powerloom owner can reduce the cost of borrowing of capital either by availing 20% upfront credit linked capital subsidy or by obtaining 5%

The Government has identified: the decentralized powerloom sector as one of the important sub-sectors of the Textile sector and several incentives have been given for the growth and development of this Sector.

interest reimbursement on the loans availed.

Group Work Shed Scheme for Powerloom Up-gradation

The Government has announced a scheme for assistance for construction of group worksheds for powerlooms to create a better working environment and to encourage modernisation for high productivity. Under the Scheme, subsidy for construction of Workshed would be 25% of the unit cost of construction subject to a maximum of Rs. 80/- per sq. ft. Ordinarily, the benefit is restricted to 4 sheds of 3,600 sq. ft. (i.e. an area of 14,400 sq. ft) per beneficiary. Promoters' contribution will be 10% and remaining 65% may be raised as loan from financial institutions.

Workers' Insurance Scheme

This Scheme has two components— Janashri Bima Yojana & Add on GIS for Death.

Under Janashri Bima Yojana (JBY) powerloom workers aged between 18 to 59 years and below the poverty line (BPL) or marginally higher than the BPL are eligible for an insurance coverage of Rs. 50,000 on accidental death /permanent disability; Rs. 25,000 on permanent partial disability; or Rs. 20,000 on natural death / partial disability. The annual premium of Rs. 200 would be shared by the Central Government, the beneficiary and LIC in the ratio of 60:40: 100 respectively. Under the Add on Scheme, additional insurance coverage of Rs. 30,000 on natural as well as accidental death is made available at annual premium of Rs. 180, which would be shared equally by the Central Government and the beneficiary.

Setting up Apparel Park

An effort by government to set up Apparel Park to promote industry has started taking shape. Apparel Park would provide common infrastructural facilities to the entrepreneur under one roof.

Diamond Industry

Custom Duty Exemptions

In order to give a boost to exports of gems and jewellery, Government took major policy initiatives during 2004-05, which include lowering import duty on platinum from Rs.550 per 10 gms to Rs.200 and exempting rough coloured precious gems stones from customs duty at the first stage itself instead of claiming reimbursements later. Rough semi precious stones are already exempt. This further increased the exports of studded jewellery and platinum jewellery.

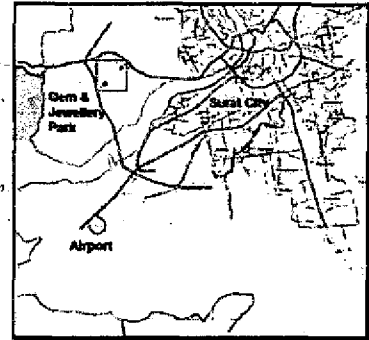
Duty Free Imports

The policies for this sector announced in the Foreign Trade Policy include duty free import of consumables for metals other than gold and platinum up to 2 per cent of f.o.b. value of exports; duty free re-import entitlement for rejected jewellery up to 2 per cent of f.o.b. value of exports; increased duty free import of commercial samples of jewellery to Rs.1 lakh; and import of gold of 18 carat and above under the replenishment scheme.

Import Replenishment Scheme

Under Import Replenishment Scheme introduced by the Government of India in 1958, diamond traders were allowed to import roughs from Diamond Trading Corporation, London and other sources abroad and export polished diamonds.

Setting Up Gems & Jewellery Park



13. Support Institutions and Organizations

There are several institutions and organizations which are working in the city region. There are weavers'/manufacturers' associations, institutions providing technical assistance, organizations for research and development, export promoting councils, and many others working for the growth of the industry.

The Southern Gujarat Chamber of Commerce & Industries
 District Industries Center
 Gujarat Industrial Development Corporation
 Gujarat Small Industries Corporation
 Gujarat Electricity Board
 Gujarat State Finance Corporation
 South Gujarat Textile Powerloom Association
 Federation of Gujarat Weavers
 The Surat Weavres' Co-operative Producers Society
 Bardoli Chambers of Commerce
 Indian Diamond Institute
 South Gujarat Texturizers Association
 The Udhana Group Weavers Producers Co-operative Society Ltd
 The Surat Art Silk Cloth Manufacturers' Association
 The South Gujarat Textiles Processors Association
 All India Federation of Jari Industries
 Surat Diamond Association
 Gems and Jewellery Export Promotion Council (established in 1966)

Industrial Association

The Surat District Industrial Association
 Mangrol Taluka Industrial Association
 Hazira Industrial Association
 Kim-Pipodara Industrial Association
 Sachin Industries Co-operative Society Ltd.
 Khatodara Industrial Association
 Pandesara Industrial Association
 The Udhana Udhyognagar Sahakari Sangh Ltd.
 Katargam Industrial Shed Holders' Association

Training/Academic/Research Institute

Industrial Training Institute
 MANTRA
 Indian Diamond Institute
 NIFT

14. Innovation and Learning

Urban Management Innovations

Since May 1995, however, a remarkable turnaround in state of affairs has been observed, as a result of a series of initiatives was taken by the elected council and the civic administration. Since the plague in the city was a manifestation of the incapacity of the civic authority to manage the basic services, the government undertook a massive clean-up as well as administrative reform exercise.

The administrative setup for solid waste management was modified and the six zones were sub-divided into 52 sanitary districts for better waste collection efficiency. A daily monitoring system was introduced. Private contractors were engaged to collect and transport waste to the disposal site, as well as to sweep and scrape all major streets. Slum improvement operations were undertaken with the assistance of NGOs. At the macro-level, the entire administrative and financial management system of Surat Municipal Corporation was revamped. Policy decisions were taken for making the government more responsive. The drive that was launched was thus aimed at transforming not only the city but also the attitudes of the people as well as officials. This was achieved, not through some piece-meal efforts of a few pilot projects, but through institutionalization of many reforms.

The national press highlighted the transformation of Surat from a filthy city to the second cleanest city and this prompted many local governments to visit Surat and learn from its experience. Through the transformations, the city government has created an enabling environment for trade, industry and business to flourish by adopting a judicious mix of policies, incentives, tariff structure, assured access to amenities, access to serviced land, creation of markets and high quality, affordable infrastructure, recognizing the existing large scale informal trade and cheap labour availability.

14.1 Diamond Industry

Small Scale, Cottage business

The industry organization is quite unique. The entrepreneurs have maintained organic growth model and most of the units are low key with skilled workers directly working under the entrepreneurs. The units have 2 to 50 mills each equipped with 4-5 skilled labors. On an average, about 30 craftsmen work in a unit. Thousands of such small units work in harmony. As 95% of the units are clustered around Mumbai & Surat, they are more complimentary than competitive. They collectively serve diverse needs of customers from across the globe.

Networking & Marketing

Marketing of diamonds by cottage scale units world over is a unique process and is carried by networking. Keeping relationships with family members and friends abroad and networking with them play a vital role. Indian diamond industry has identified a niche in the export market. The domestic market is US \$ 120 million as compared to US \$ 5500 million export market.

Self Finance

Low start-up capital requirements, few easy installments, organized financing options have made it follow unique model of self-financing. Most of the units have started with entrepreneurs' own money and have grown organically.

Urban Management Innovations

- Operation Clean Up
 - Administrative Revamping
 - Public Private Partnership for Solid Waste Management (SWM)
 - SWM Monitoring System
 - Stringent Enforcement and Administrative Charges
 - Slum Improvement
- Administrative Transformation
 - Delegation of administrative and financial powers to CEOs of various departments
 - Daily Review of Activities
 - Responsive Urban Governance (Grievances Redressal System)
 - Public Health Mapping
 - Financial Management (Online Tax Collection System, Computerization of other records)

Innovation and Learning

The Diamond Industry is an interesting industry from an Indian standpoint, since it involves imported raw material, domestic value added, and global markets and provides skilled employment. Indian gems firms are tightly integrated into global production chains.

The success can be attributed to training and improvement of inherited, community-based artisan skills. The communities (castes in India) also engaged in training and skill enhancement, access to larger markets through traditional networks and technology enhancement, for both production and markets/communication. A Surat diamond-cutters study (Kashyap and Tiwari, 1985) found the following:

- An organisational structure of distribution, processing and markets based strongly on trust, with the rough and polished diamonds changing hands without any written documentation;
- Constant upgrading of technology on the production side, with hand polishing giving way to semi-automatic tools;
- Intense competition and mobility
- Community (caste) based training efforts of a decentralised nature in each *Taluka* centre in Gujarat.

Diverse Product-mix

The diamond industry has developed diverse product-mix to meet worldwide demands, customer tastes & preferences. Diversity in product mix is achieved by non-standardizing the processing of diamonds. Through unmatched skills in cutting & polishing and with alterations in cut, carat, color and clarity, there have been a variety of new cuts the Indian industry has been able to produce.

Use of non-perfect crystals

India which uses non-perfect diamonds like polycrystalline, macles, distorted crystals, 'near gems' or 'near industrials', processing is not easily suitable to automation and has developed machinery to suit these applications as also to take advantage of cheap skilled labor.

On-the-job training

The skills are passed on from generation to generation and identification of roughs, cutting, polishing and even marketing skills are inherited by people from their senior family members. Educational qualification does not count, but learning by experience is what is practiced.

14.2 Textile Industry

Favourable environmental conditions of Surat (temperature and humidity) for textile manufacturing process and availability of manpower (Migrant Labour Force from A.P., Orissa, and other states) has accelerated growth of textile industry in the city.

Textile Industry in Surat

This growth has created vast potential for the growth of allied industries and attracted traders from all over India. The weaving industry attracted traders in manufacturing and machineries and mill-gin stores, in yarns and in oil for lubrications, and sizing. The weaving industry also attracted processors from outside and gradually

Innovations:

- Diverse Product Mix
- Use of Non-Perfect Crystal
- On-the-job Training

process houses came up in Surat. This attracted traders and manufacturers of chemicals / auxiliaries / dyestuff and processing machineries and grey and finished fabrics.

Innovations and Learning

Diverse Product Mix

Units in Textile industry can be of three types:

- Units which do job work for traders, master weavers or process houses. These are small units having restricted finance.
- Units purchasing yarn and preparing/weaving fabrics and marketing as grey.
- Units buying yarn, preparing / weaving fabrics, processing them and then marketing as dyed / printed.

In Surat, manufacturers and traders can find all the three types of units. One can find wide array of product mix to suit their own requirement.

Availability of Cheap Labour

The job in textile industry does not require any specific skill or educational background. These are basically low skill and low technology jobs. The workers joining this industry are trained on the job only. This feature has attracted many people all over the country. Migrants from Maharashtra, Andra Pradesh, Orissa, and many other states of the country come here to work.

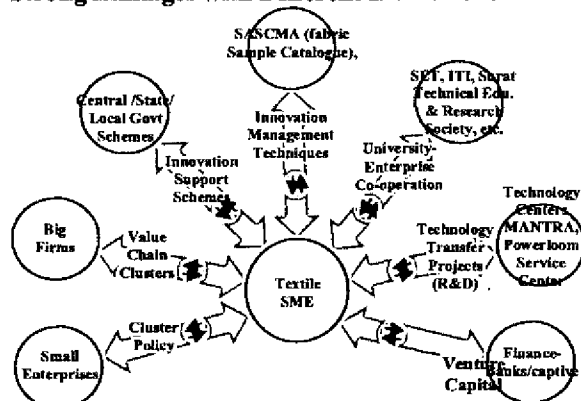
Cost cutting through large volumes low margins

The profit margins in the industry are very low but the people in this industry have a cutting-edge as they manufacture large volumes. This is a unique feature of textile industry in Surat.

Local Government Support in Access to Water

Realizing the requirement of water in dyeing and printing industry the local government has made the access to water cheaper. Tanker of water which was INR 500 per tanker is now available at INR 160 per tanker. A common Effluent Disposal System is also under construction.

Strong Linkages with Different Institutions



There are many institutions promoting the growth of the industry. Institutions like SASMA, MANTRA, and many others have contributed a lot in the success of the industry. The industry has got support from different institutes at different stages of its cycle.

Innovations

- Diverse Product Mix
- Availability of Cheap Labour
- Support of Local Government
- Strong Linkages with different Institutions

15. Issues

Textile Industry

Textile industry slow in adopting technological innovations

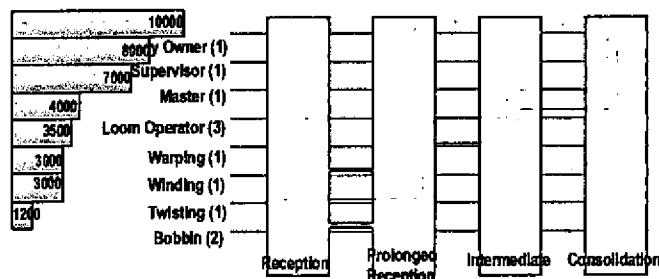
Despite a couple of schemes introduced by the Central and the State Government for upgradation of textile industry, the adoption of technological advancement is observed to be low. The main reasons of this can be high investments in technological advancements.

Low skilled migrant labour are not provided any social security

The workers in the industry come from different parts of the country. People from states like Maharashtra, Andhra Pradesh, Orissa, Bihar, Rajasthan have been working in the industry. These workers are not provided any social security. They live in slums nearby their workplace in miserable condition. As textile workers are paid on a piece rate basis they have two ways of increasing their income: by increased productivity or by extending the working hours. The table below shows profile of skilled/unskilled workers in different sector, which again indicates poor condition of workers.

Sector of Work	Un-organized	Un-organized	Organized
Workers Category	Unskilled	Skilled	Skilled
Wage (Rs. per month)	2000	3000-7000	7000
Working Hours	12 hours	12 hours	8 hours
Leave and Entitlements	None	None	As per law
Working Environment	dingy	dingy	better

Low Pace of Upward Mobility of Workers in the Labour Market



The chart above shows common trajectories adopted by the workers in the labour market. There are generally four stages (reception, prolonged reception, intermediate and consolidation) in a worker's life when he enters the labour market. They enter as a bobbin operator and a few reach a position of a master or supervisor. Generally, they remain at prolonged reception stage where they earn low wages and possibility of moving upwards is very low as reaching to the level of a master (technical expert) requires technical skills.

Diamond Industry

Workers deprived from social security

It is observed that the workers in the industry are not paid well. Workers in this industry are mainly migrants from south Gujarat region. These workers are not offered any kind of social security.

Occupation health of workers

The working environment in this industry is not workers' friendly. They work day and night in closed, non-ventilated rooms. The occupational health of the workers is a serious concern.

Issues in Textile Industry

- Textile industry slow in adopting technological innovations
- Low skilled migrant labour are not provided any social security
- Low Pace of Upward Mobility of Workers in the Labour Market

Issues in Diamond Industry

- Workers deprived from social security
- Occupation health of

16. Overall Assessment

Strength

- Diversity in economic base: Textiles, diamond cutting and polishing, zari Industry
- major market for yarn and major centre for trade in the region
- Emergence of a petrochemical complex in the region and centrally promoted SEZ
- Quality-Cheap labour
- Responsive Local Administration
- Strong sense of belongingness and pride of being a Surati and at the same time always willing to accept and include people from other cultures. The city is known for its social harmony.
- Seen as an alternate to Mumbai as a place of residence
- Sustained growth spread over four decades

Weakness

- Multi tiered protocols for industrial clearances
- Medium quality of Power supply
- Weak connectivity with major centers/ world cities from a competitive perspective
- Dominant informal sector
- Rigid land conversion and town planning process
- Unregulated peri-urban growth and weak institutional structures
- High costs of living
- Large segment of work force and population living in slums
- In between two major metro's (Mumbai and Ahmedabad)
- Quality of services in peri urban areas
- Absence of education facilities to respond to local industrial demand

Opportunity

- Growth in the region and potential for down stream industries (Petrochemical & Gas based)
- Potential for demand in terms of trade and transit services, and social sectors such as health, education, leisure and tourism
- Enhancing quality of life

Threat

- Policy risks such as incentives in neighboring states, trade and tariff regimes on raw materials
- Health concerns related to migrant population (HIV)
- Environmental degradation

The resourceful and inclusive city region of Surat with a dynamic local authority thrives for excellence to become a dominant player in the global scenario. Its distinct social and economic character is its major strength. Its strength lies in its diverse economic base, conducive environment for industrial growth provided by responsive local administration, entrepreneurial skill of people, peoples' willingness to accept other people belonging to different culture and sustained growth over four decades. While Surat is seen as an alternate to Mumbai as a place of residence, at the same time it is also a weakness that it is located in between two metro cities namely Mumbai and Ahmedabad. Incentives in neighbouring states like Maharashtra are a serious threat to the industrial growth in the city region. The major weakness of the city region is lack of educational institutions to respond to local institutional demand. Large proportion of the population lives in slums in Surat as cost of living is quite high. At the same time, the opportunity provided by the local administration to enhance quality of life of the residents makes the city enterprising by creating a safe living and business friendly environment. The recent development and growth of petrochemicals and gas-based industries in the city region should be considered as an opportunity for further growth. Potential for demand in terms of trade and transit services should be tapped for sustainable growth of the city.